UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/583,145	06/16/2006	Toshihiro Hanada	1001560-000597	2583

21839 7590 12/10/2009

BUCHANAN, INGERSOLL & ROONEY PC
POST OFFICE BOX 1404
ALEXANDRIA, VA 22313-1404

EXAMINER	
BASKIN, JEREMY S	

ART UNIT	PAPER NUMBER
3753	

NOTIFICATION DATE	DELIVERY MODE
12/10/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

Office Action Summary	Application No.	Applicant(s)	
	10/583,145	HANADA, TOSHIHIRO	
	Examiner	Art Unit	
	Jeremy S. Baskin	3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 July 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 and 4-10* is/are pending in the application.

4a) Of the above claim(s) *8-10* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 4-7* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 June 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Young (3,511,468).

In regard to Claim 1, Young teaches a valve 10 comprising a valve body 16 and a tube 12 made of an elastomer extending through the inside of the valve body in Figure 1. The tube provides a flow passage having a flow passage axis defined by the cross-sectional center of the tube. The valve is characterized by further comprising a squeezing means 15, 20 which is disposed on opposite sides of the tube. A rotating member 17 is supported by the valve body so as to be rotatable about an axis of rotation formed by a shaft 18 (col. 2, lines 49-54). The squeezing means comprises a roller 20 rotatably supported by the rotating member so that the roller orbits about the axis of rotation of the rotating member along with rotation of the rotating member. An arc-shaped pressing surface 15a is formed on the valve body and extends about the axis of rotation of the rotating member. Part of the tube is arranged along the pressing surface in Figures 3-5. Rotation of the rotating member makes the roller move to a position facing the pressing surface to collapse the tube and close the flow passage inside the tube and then makes the roller move parallel to the pressing surface to so as to move a collapsed position where the tube is collapsed by the roller while maintaining the flow passage in the closed state (see Figures 3-5, col. 3, lines 12-31).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Young in view of Rasmusson (5,346,173).

In regard to Claims 4 and 7, Young teaches the limitations as discussed in the rejections of Claim 1 above, but fails to specifically teach where a cylinder chamber of the valve body houses a fluid actuated piston which rotates the rotating member via a shaft and notch engagement.

Rasmusson discloses a piston valve actuator. Rasmusson teaches where a cylinder chamber 6 houses a piston 9 which is driven in an axial direction by a working fluid via ports 7, 8. The piston rotates a rotating member 21 via a shaft 22 and vertical notch 27 engagement. The shaft both extends parallel and rotates with the axis of rotation of the rotating member.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to incorporate, in Young, a fluid actuated piston with tooth and shaft actuator, as taught by Rasmusson, as a suitable powered drive means for effecting a rotation upon the rotating member. The combination of Young in view of Rasmusson necessarily teaches where the shaft is positioned at an opposite side from the roller across the axis of rotation of the rotating member.

5. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Young in view of Rasmusson as applied to claims 1 and 4 above, and further in view of Repplinger (4,403,764).

In regard to Claims 5 and 6, Young in view of Rasmusson fail to specifically teach where a spring is provide in the cylinder chamber to urge the piston in the axial direction. Young in view of Rasmusson fail to further teach where the piston is positioned at a neutral position by the spring.

Repplinger discloses a piston actuated tube compression valve. Repplinger teaches where a spring 68 is provided within the cylinder chamber 50 to force the piston to one end of the cylinder chamber (col. 5, lines 43-47, Figure 23). The piston is positioned by the spring at a neutral position (Figure 23) where the roller 36 is linked to the piston and collapses a portion of the tube 26 with the pressing surface 38. A working fluid is utilized to move the piston between closed and neutral positions (col. 8, lines 29-35).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to incorporate, in Young in view of Rasmusson, a spring which positions the piston at a neutral position, as taught by Repplinger, so as to reduce the force required by the working fluid to engage the roller with the elastomeric tube. The combination of Young in view of Rasmusson in further view of Repplinger necessarily teach that the roller and pressing surface collapse the tube via the fluid actuation on the piston and the shaft and notch engagement between the rotating member and piston.

Response to Arguments

6. Applicant's arguments with respect to Claims 1 and 4-7 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy S. Baskin whose telephone number is (571) 270-7421. The examiner can normally be reached on Monday through Friday, 7:30AM to 5:00PM ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on 571-272-4777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. S. B./
Examiner, Art Unit 3753

/Robin O. Evans/
Supervisory Patent Examiner, Art Unit 3753